

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011061**Date Inspected:** 02-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Yu Qi Guo, Wu Zhi Zhang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** TOWER / OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**HEAVY DOCK**

This QA Inspector randomly observed the following work in progress.

**SOUTH TOWER LIFT # 1**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 057244 performing Flux Cored Arc Welding process for weld SSD1-A11G/H-08 located on PCMK corner diagonal weld between skin B and skin C of South tower lift 1. ZPMC QC Mr. Yu Qi Guo monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

**WEST TOWER LIFT # 1**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 049541 performing Flux Cored Arc Welding process for weld WSD1-SA279-10 located on PCMK the weld between P397 and P1144 on skin B of West tower lift 1. ZPMC QC Mr. He Gen monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

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# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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This Quality Assurance (QA) Inspector observed ZPMC qualified welder 040736 performing Flux Cored Arc Welding process for weld WSD1-SA294F/G-20 located on PCMK the weld between P389 and P1144 on skin C of West tower lift 1. ZPMC QC Mr. He Gen monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2333-TC-P4-F.

## TRIAL ASSEMBLY YARD

This QA Inspector randomly observed the following work in progress.

### OBG SEGMENT 5 BW

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 054467 performing Shielded Metal Arc Welding process for weld SEG023A-032 located on PCMK weld between bottom panel and side panel (C.B side). ZPMC QC Mr. Zhang Hai Tao monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-1G (1F) Repair-1. Weld repair report identified as B-WR9548. ZPMC ultrasonic inspection report identified as B787-UT-10043.

### OBG SEGMENT 6 WEST

This Quality Assurance (QA) Inspector observed ZPMC qualified welders 220066, 053609 performing Flux Cored Arc Welding process for weld OBW6C-004 located on PCMK side panel splice weld between OBG segment 6BW and 6CW (cross beam side). ZPMC QC Mr. Wu Zhi Zhang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233-T-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welders 220067, 220069 performing Flux Cored Arc Welding process for weld OBW6A-002 located on PCMK deck panel splice weld between OBG segment 6BW and 6CW. ZPMC QC Mr. Wang Zhu monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-223 (2) 1-T-2.

## BLAST SHOP # 1

### VISUAL INSPECTON

#### OBG SEGMENT 8BW

This Quality Assurance (QA) Inspector performed visual inspections along with Caltrans Quality Assurance (QA) Inspectors Mr. Paul Dawson and George Goulet of the interior ceiling, floor beams and floor of OBG 8BW in between PP66 and PP67 after it had been blasted prior to painting.

During the inspection we found normal minor gouges, arc strikes, pinhole, undercut, temporary attachments the major issue was this Quality Assurance (QA) Inspector observed that the weld between the horizontal diaphragm and the bottom plate at panel point 66.5 on the counterweight side requires a weld repair. This area, underneath a weld access hole, has a gap in the fillet weld where it had been welded from each side of the access hole and these two weld passes were never tied together. When we observed this problem all the ZPMC Inspectors had left the area. See attached photos below for additional information. ZPMC Inspection request number was 2423.

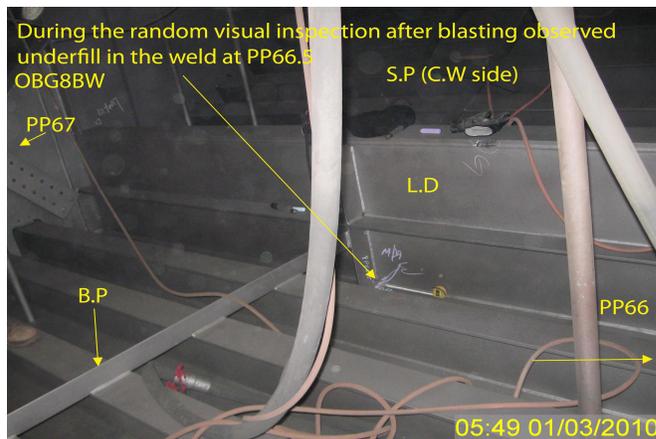
Unless otherwise noted, all work observed on this dated appeared to generally comply with applicable contract documents.

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# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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## Summary of Conversations:

No relevant conversations.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Utekar,Shrikant

Quality Assurance Inspector

**Reviewed By:** Dawson,Paul

QA Reviewer

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